

IN THE CLAIMS

Please amend the claims as follows.

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Withdrawn) The optical transmitter of Claim 9 wherein the laser driver is a CMOS circuit.

15. (Withdrawn) The optical transmitter of Claim 14 wherein the laser is a VCSEL diode.

16. (Withdrawn) The optical transmitter of Claim 9 wherein adjusting the modulation mode of the current signal is accomplished by setting one or more inputs of the modulation control.

17. (Withdrawn) The optical transmitter of Claim 9 wherein adjusting the bias mode of the current signal is accomplished by setting one or more inputs of the bias control.

18. (Previously Presented) An optical receiver comprising:
a first photo-detector to receive a first optical signal and to generate a first current signal;
a first transimpedance amplifier circuit to convert the first current signal to a first differential voltage signal, wherein the first transimpedance amplifier circuit is configured to produce a differential voltage and is further configured to difference the components of the differential voltage to produce said first differential voltage signal wherein the first transimpedance amplifier comprises three stage pairs, where each pair comprises two inverter amplifiers, and where the two inverter amplifiers of the second stage pair are resistively cross coupled;
a clock recovery circuit having a phase interpolator to generate an aligned clock signal for said first differential voltage signal;
a sampler circuit to receive the aligned clock signal and to receive the differential voltage signal and to generate a digital voltage sequence; and
a deserializer circuit to receive the digital voltage sequence and to generate an N-bit data.

19. (Withdrawn) The optical receiver of Claim 18 wherein said first transimpedance amplifier circuit complimentary couples a first single-ended voltage signal corresponding to the first current signal with a second single-ended voltage signal to generate said first differential voltage signal, and resistively couples said first and second single-ended voltage signals to attenuate a common signal noise.

20. (Withdrawn) The optical receiver of Claim 19, said first transimpedance further comprising:

a differential impedance matching capacitor to provide an input impedance for the second single-ended voltage signal to match a package trace impedance corresponding to the first photo-detector.

21. (Original) The optical receiver of Claim 18 further comprising:

a second photo-detector to receive a second optical signal and to generate a second current signal;

a second transimpedance amplifier circuit to convert the second current signal to a differential clock signal;

said clock recovery circuit having said phase interpolator to generate the aligned clock signal for said first differential voltage signal from the differential clock signal.

22. (Original) The optical receiver of Claim 21 further comprising:

a delay locked loop to generate a plurality of clock phases from the differential clock signal;
and

said phase interpolator to generate the aligned clock signal from the plurality of clock phases.

23. (Canceled)

24. (Canceled)

25. (Withdrawn) The optical signaling system of Claim 23, said laser driver further comprising: a CMOS modulation circuit having a pMOSFET, a first nMOSFET and a second nMOSFET, the CMOS modulation circuit to cause the first current signal in the modulation mode to flow between the laser, the first nMOSFET and the second nMOSFET responsive to

the input of the laser driver being shifted to a first voltage level, and to causes the first current signal in the bias mode to flow between the laser and the bias control when another current flows through the pMOSFET responsive to the input of the laser driver being shifted to a second voltage level.

26. (Withdrawn) The optical signaling system of Claim 25 wherein an input gate of the third nMOSFET is to reduce an overshoot of the first current signal.

27. (Withdrawn) The optical signaling system of Claim 23 wherein the laser is a VCSEL diode.

28. (Withdrawn) The optical signaling system of Claim 23 wherein adjusting the modulation mode of the current signal is accomplished by setting one or more inputs of the modulation control.

29. (Withdrawn) The optical signaling system of Claim 23 wherein adjusting the bias mode of the current signal is accomplished by setting one or more inputs of the bias control.

30. (Withdrawn) The optical signaling system of Claim 23 wherein said first transimpedance amplifier circuit complimentary couples a first single-ended voltage signal corresponding to the first current signal with a second single-ended voltage signal to generated said first differential voltage signal, and resistively couples said first and second single-ended voltage signals to attenuate a common signal noise.

31. (Withdrawn) The optical signaling system of Claim 30, said first transimpedance amplifier further comprising: a differential impedance matching capacitor to provide an input impedance for the second single-ended voltage signal to match a package trace impedance corresponding to the first photo-detector.

32. (Canceled)

33. (Canceled)